

## Material Safety Data Sheet

### SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product Name:** ANTI-FOAM AGENT II E  
**Part Number:** none **Chemical Family:** alcohol mixture  
**Manufacturer's Name:** Siemens Industry, Inc. - Water Technologies Business Unit  
**Address:** 181 Thorn Hill Road, Warrendale, PA 15086  
**Product/Technical Information Phone Number:** (412) 772-0044  
**Medical/Handling Emergency Phone Number:** CHEMTREC 1-800-424-9300  
**Transportation Emergency Phone Number:** CHEMTREC 1-800-424-9300  
**Issue Date:** September 18, 2000  
**Revision Date/Revision Number:** April 2011/ Rev 1

### SECTION 2 – COMPOSITION INFORMATION

| <u>Chemical Name</u> | <u>Percent by Weight</u> | <u>CAS#</u> |
|----------------------|--------------------------|-------------|
| 2-Ethylhexanol       | proprietary              | 104-76-7    |
| Methanol             | proprietary              | 67-56-1     |

### SECTION 3 – HAZARDS IDENTIFICATION

**Appearance & Odor:** Clear, colorless liquid with pungent odor.

**Emergency Overview:** POISON! DANGER! May be fatal or cause blindness if swallowed. Harmful if inhaled or absorbed through skin. Causes irritation to skin, eyes and respiratory tract. Affects central nervous system and liver. Flammable liquid and vapor.

**Fire & Explosion Hazards:** Vapors may flow along surfaces to distant ignition sources and flash back. Closed containers may explode if exposed to heat. Burns with a clear, almost invisible flame.

**Primary Route(s) of Exposure:** inhalation, ingestion, eye contact, skin contact, absorption

**Inhalation – Acute Effects:** Inhalation of vapors is harmful and may be fatal. Inhalation of vapors may cause respiratory tract irritation, conjunctivitis, headache, dizziness, confusion, nausea, vomiting, weakness, vertigo, chills, pains in the lower extremities, unsteady gait, giddiness, insomnia, gastric disturbances, failure of vision, coma and death.

**Skin Contact – Acute Effects:** Skin contact may cause moderate irritation with dry, cracked skin. May be absorbed through the skin. May cause sensitization or allergic reaction in some individuals.

**Eye Contact – Acute Effects:** Eye contact will cause severe irritation and may cause temporary corneal damage.

**Ingestion – Acute Effects:** Harmful if swallowed and may be fatal. Toxic. Ingestion may cause nausea, vomiting, diarrhea, central nervous system depression, headache, vertigo, severe upper abdominal pain, back pain, dyspnea, motor restlessness, cold clammy extremities, blurring of vision, slow pulse, coma and death. Visual disturbance can proceed to blindness.

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### SECTION 4 – FIRST AID MEASURES

**Inhalation First Aid:** Remove affected person from area to fresh air and provide oxygen if breathing is difficult. Give artificial respiration ONLY if breathing has stopped and give CPR ONLY if there is no breathing and no pulse. Obtain medical attention.

**Skin Contact First Aid:** Immediately remove clothing from affected area and wash skin for 15 minutes with flowing water and soap. Clothing and shoes should be discarded or washed before reuse. Obtain medical assistance if irritation develops. DO NOT instruct person to neutralize affected skin area.

**Eye Contact First Aid:** Immediately irrigate eyes with flowing water continuously for 15 minutes while holding eyes open. Contacts should be removed before or during flushing. Obtain medical attention immediately. DO NOT instruct person to neutralize.

**Ingestion First Aid:** If victim is alert and not convulsing rinse mouth with water and give plenty of water to drink. If spontaneous vomiting occurs, have affected person lean forward with head down to avoid breathing in of vomitus. Rinse mouth again and give more water to drink. Vomiting may need to be induced but should be directed by a physician or a poison control center. DO NOT have unqualified personnel induce vomiting. Obtain medical attention immediately.

**Medical Conditions Aggravated:** eye disorders, skin disorders, liver or kidney disorders

**Note to Physician:** Treat patient symptomatically.

### SECTION 5 – FIRE FIGHTING MEASURES

**Flash Point/Method:** 178 °F open cup

**Auto Ignition Temperature:** not determined for mixture

**Upper/Lower Explosion Limits:** not determined for mixture

**Extinguishing Media:** Alcohol foam, dry chemical, carbon dioxide. Water may be ineffective.

**Fire Fighting Procedures:** Fire-fighters should wear proper protective equipment and NIOSH approved self-contained (positive pressure if available) breathing apparatus with full facepiece. Move containers if it can be done without risk. Use water to keep fireexposed containers cool.

**Fire & Explosion Hazards:** Vapors may flow along surfaces to distant ignition sources and flash back. Closed containers may explode if exposed to heat. Burns with a clear, almost invisible flame.

**Hazardous Products of Decomposition and/or Combustion:** Carbon monoxide, carbon dioxide, formaldehyde. May produce acrid smoke and irritating fumes when heated to decomposition.

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### NFPA Ratings:

HEALTH- 2 FLAMMABILITY- 3 REACTIVITY- 0 OTHER- none

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. No smoking. Stop leak if you can do so without risk. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Use water spray to reduce vapors. Do not flush to sewer.

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State, Local and Provincial laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

### SECTION 7 – HANDLING AND STORAGE

**Handling:** Wear personal protective equipment when handling.

**Storage:** Store in a cool, dry, well-ventilated location, in a flammable liquid storage area. Use non-sparking type tools and equipment, including explosion proof ventilation. Bond and ground containers when transferring liquid to avoid static sparks. Keep containers tightly closed. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, sparks, flame, static electricity or other sources of ignition.

**General Comments:** Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

### SECTION 8 –PERSONAL PROTECTION/ EXPOSURE CONTROL

**Respiratory Protection:** Protection is required if airborne concentration exceeds TLV. At concentrations above 200 ppm, a self-contained breathing apparatus is advised.

**Skin Protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:** Wear chemical safety goggles and/or a full face shield.

**Ventilation Protection:** A system of local and/or general exhaust is recommended to keep employee exposures below the exposure limits. Use explosion-proof equipment.

**Other Protection:** Safety showers, with quick opening valves which stay open, and eye wash fountains, or other means of washing the eyes with a gentle flow of cool to tepid tap water, should be readily available in all areas where this material is handled or stored. Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather.

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### Exposure Limits:

For Methanol:

OSHA PEL-TWA: 200 ppm

ACGIH TLV-TWA: 200 ppm; STEL: 250 ppm (skin)

NIOSH REL-TWA: 200 ppm; STEL: 250 ppm (skin)

NIOSH IDLH: 6000 ppm

For 2-Ethylhexanol:

No exposure limits have been developed.

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**Appearance & Odor:** Clear, colorless liquid with pungent odor.

**Vapor Pressure:** 0.36 **Vapor Density (Air=1):** 4.49

**Boiling Point:** 360°F **Melting Point:** ND\*

**Specific Gravity:** 0.80 **Solubility in Water:** negligible

**Volatile Percentage:** ND **pH:** ND

**Flash Point/method:** 178 °F/open cup **Auto Ignition Temperature:** ND

**Upper/Lower Explosion Limits:** ND **Other:** ND

\*ND=Not determined

### SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable under ordinary conditions of use and storage.

**Incompatibilities:** Acids and strong oxidizing agents such as nitrates, perchlorates or sulfuric acid. Will attack some forms of plastics, rubber and coatings. May react with metallic aluminum and generate hydrogen gas.

**Polymerization:** Will not occur.

**Decomposition:** Carbon monoxide, carbon dioxide, formaldehyde. May produce acrid smoke and irritating fumes when heated to decomposition.

**Conditions to Avoid:** Heat, flames, ignition sources and incompatible materials.

### SECTION 11 – TOXICOLOGICAL INFORMATION

**Inhalation – Acute:** Inhalation of vapors is harmful and may be fatal. Inhalation of vapors may cause respiratory tract irritation, conjunctivitis, headache, dizziness, confusion, nausea, vomiting, weakness, vertigo, chills, pains in the lower extremities, unsteady gait, giddiness, insomnia, gastric disturbances, failure of vision, coma and death. The methanol inhalation LC50 (rat) is 64000 ppm/4H.

**Inhalation – Chronic:** Chronic exposure to methanol may cause marked impairment of vision or blindness and enlargement of the liver.

**Skin Contact – Acute:** Skin contact may cause moderate irritation with dry, cracked skin. May be absorbed through the skin. May cause sensitization or allergic reaction in some individuals. The 2-ethylhexanol dermal LD50 (rabbit) is 1970 mg/kg. The methanol dermal LD50 (rabbit) is 15800 mg/kg. The methanol subcutaneous LD50 (mouse) is 9800 mg/kg.

**Skin Contact – Chronic:** Prolonged or repeated skin exposure may cause sensitization.

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Methanol will cause defatting of the skin.

**Eye Contact – Acute:** Eye contact will cause severe irritation and may cause temporary corneal damage.

**Ingestion – Acute:** Harmful if swallowed and may be fatal. Toxic. Ingestion may cause nausea, vomiting, diarrhea, central nervous system depression, headache, vertigo, severe upper abdominal pain, back pain, dyspnea, motor restlessness, cold clammy extremities, blurring of vision, slow pulse, coma and death. Visual disturbance can proceed to blindness. Ingestion of as little as 4 ml of methanol has caused blindness and ingestion of 80-150 ml is usually fatal. Methanol possesses distinct narcotic properties. Coma from massive exposures may last as long as 2-4 days. Methanol poisoning may cause neurological damage leading to permanent motor dysfunction. The methanol oral LD50 (rat) is 5628 mg/kg. The probable oral lethal dose (human) of 2-Ethylhexanol is 0.5-5 g/kg. The 2-Ethylhexanol oral LD50 (rat) is 3730 mg/kg.

**Ingestion – Chronic:** Chronic exposure to methanol may cause marked impairment of vision or blindness and enlargement of the liver.

**Carcinogenicity/Mutagenicity:** There are no known carcinogenic/mutagenic effects.

**Reproductive Effects:** There are no known reproductive effects.

**Neurotoxicity:** Methanol poisoning may cause neurological damage leading to permanent motor dysfunction.

**Other Effects:** The methanol intraperitoneal LD50 (rat) is 9540 mg/kg.

**Target Organs:** Target organs include the eyes, skin, respiratory system, central nervous system, liver, gastrointestinal tract, lungs, and kidneys.

## SECTION 12 – ECOLOGICAL INFORMATION

Harmful to aquatic organisms.

## SECTION 13 – DISPOSAL CONSIDERATIONS

Material that cannot be used or chemically reprocessed and empty containers should be disposed of in accordance with all applicable regulations. Product containers should be thoroughly emptied before disposal. Generators of waste material are required to evaluate all waste for compliance with RCRA and any local disposal procedures and regulations.

NOTE: State and local regulations may be more stringent than federal regulations.

## SECTION 14 – TRANSPORTATION INFORMATION

**DOT Shipping Description:** see shipping papers

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### SECTION 15 – REGULATORY INFORMATION

For Methanol:

CERCLA SECTION 103 (40CFR302.4): yes RQ: 5000 lbs

SARA SECTION 302 (40CFR355.30): no

SARA SECTION 304 (40CFR355.40): no

SARA SECTION 313 (40CFR372.65): yes

OSHA PROCESS SAFETY (29CFR1910.119): no

CALIFORNIA PROPOSITION 65: no

RCRA WASTE CODE: U154

For 2-Ethylhexanol:

CERCLA SECTION 103 (40CFR302.4): no RQ: none

SARA SECTION 302 (40CFR355.30): no

SARA SECTION 304 (40CFR355.40): no

SARA SECTION 313 (40CFR372.65): no

OSHA PROCESS SAFETY (29CFR1910.119): no

CALIFORNIA PROPOSITION 65: no

### SECTION 16 – OTHER INFORMATION

**Disclaimer:** The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the user thereof. It is the buyer's responsibility to ensure that its' activities comply with federal, state, provincial and local laws.

**Revision Indicator:** April 2011, Revised Section 1 (Updated manufacturer's name)